Mapping the Framework of Immersion Program at the Laboratory Primary School of Universitas Negeri Malang, Indonesia

Sri Rachmajanti
Universitas Negeri Malang, Indonesia
sri.rachmajanti.fs@um.ac.id

Evynurul Laily Zen
Universitas Negeri Malang, Indonesia
evynurul.laily.fs@um.ac.id

Aulia Apriana
Universitas Negeri Malang, Indonesia
aulia.apriana.fs@um.ac.id

Abstract

This study aims at conducting a thorough investigation on the English Partial Immersion Program at the Laboratory Primary School of Universitas Negeri Malang, Indonesia. It specifically seeks to map the program framework implemented in the 3rd grade of International Class Program (ICP) and to examine the stage of English L2 acquisition as the learning outcome of the three different subjects; English, Science, and Mathematics. Involving teachers and students of ICP-Grade 3, we collected data by analyzing the school documents, interviewing teachers, and distributing an English proficiency test to students. Our findings indicate that this particular program is put into a place under six frameworks, namely the implementation of (1) bridging course, (2) blended curriculum, (3) English-immersion in English, Science, and Math classes, (4) restricted learning hours for English, Science, and Math subjects, (5) communicative teaching and learning, and (6) the involvement of certified teachers. These frameworks have proven effective in bringing students to certain stage of L2 acquisition. Analyzing students' L2

comprehension, they were able to comprehend both explicit and implicit written instructions satisfyingly enabling them to perform the required tasks accurately. In the level of production, students have arrived at the complete acquisition of word spelling and word order system of both phrasal and sentential structures with some morpho-syntactic inaccuracies. Other than that, the acquisition of scientific and mathematical knowledge has also been substantiated challenging for students.

Keywords: English Partial Immersion Program, ICP class, L2 stage of acquisition

1. Introduction

The earlier works on second language acquisition have provoked a tendency that nurturing children in bilingual environment will likely result in linguistic confusion, incomplete first language (L1) development, and delayed second language (L2) acquisition (See Crystal, 2003). Such findings have driven the latter studies to uncover the impact of bilingual exposures. One of which is a longitudinal study conducted by Bruck, Lambert, and Tucker (1976) to children with English L1 in a French Total Immersion Program. They found that in the fourth or fifth year of immersion, the children' French proficiency, including reading and writing, were as close as the natives without demolishing the L1 (Ibid). This success has considerably motivated other prominent scholars, such as Lapkin, Swain, and Shapson (1990), Tarone and Swain (1995), and Baker and Jones (1998) to conduct further exploration that they all suggested the positive impact of bilingualism.

The current study takes similar stance to those aforementioned in the way that it looks closely at how L2 is acquired by Indonesian-English bilinguals sitting in what so called English Partial Immersion Program at the International Class Program (ICP) of the Laboratory Primary School of Universitas Negeri Malang, Indonesia. An in-depth observation on the children' written production is carried out to examine the stage of L2 acquisition which it is then being valued as the L2 learning outcome resulted from their participation in an immersion class.

In a point of fact, this lab school has officially been integrated into the university management system since 2009 comprising of classes from kindergarten through secondary schools and a school for autistic children. The classes are two folds: regular classes implementing a national framework and international class program employing the blended one (SD Laboratorium UM, 2014). Since the overall system of lab school is managed by Institute for Developing Laboratory of Education (BPLP: *Badan Pengembangan Laboratorium Pendidikan*) of Universitas Negeri Malang, Indonesia, the vision and mission of each schools as well as their administrative affairs refers congruently to the university system. In short, what make this lab school is different from other public and private schools is that the teaching and learning process is conducted research-based, besides a number of different pedagogical principles including natural acceleration,

mastery learning, and modular instruction.

Immersion in the context of this study is about such practice where L2 is immersed through a consistent and intensive use of it as a classroom instruction, so that the mastery of L2 structures is acquired through a meaningful input acquisition process. Following Swain and Lapkin's (2005) claim that in the context of French Immersion Program, French as the L2 functions as an additive language to English as the L1. In other words, immersion has proven to be a reliable method of second language acquisition which will not harm the L1 that some prominent studies of it we are going to review below.

Pondering on best practices of L2 learning, French Immersion Program in Canada is one to mention in which many scientific explorations have been initiated. Lambert and Tucker (1972) as reviewed by Bournot-Trites and Tallowitz (2002) investigated the implementation of the program and presented the findings that the children's L1 competence was decreasing in the first year, but it started to accelerate in the second and following years. Reeder, Buntain, and Takakuwa (1999) studied the effect of the increasing frequency of L2 (French) classroom usage toward the English L1 development. They revealed that there is no significant difference between L1 and L2 writing competence in regard with the increasing amount of L2 input which means that the intensive exposure of L2 does not threaten L1 (Ibid). Turnbull, Lapkin and Hart's (2000) evaluative study on the effect of French Immersion Program pointed out the positive result as these learners exhibited a balanced ability of L1 and L2 reading and writing particularly in their third year. They can even supersede the non immersion participants in the sixth year.

The idea of immersing L2 into L1-based classroom is widely instigated in other parts of the world. Bianco (2009) examined the implementation of immersion in China, Germany, and France, and found that the children enrolling into the program were able to develop their intellectuality and intelligence without threatening their L1 development. Furthermore, Bianco (2009) also underlined de Courcy's (2002) findings on the success of primary school learners in Melbourne - Australia to acquire not only the knowledge of science taught in German, but also the development of flexibility of cognition and thinking skill, compared to their monolingual peers. Similarly, a fundamental finding was demonstrated in Hermanto, Moreno, and Bialystok's (2012) longitudinal study on the linguistic and meta-linguistic competence at a France Immersion Program. The learners' linguistic competence, particularly vocabulary and grammar, was seen to be higher in French-based classrooms; nevertheless, their meta-linguistic competence of L2 supersedes their L1. Moreover, a study by Marian, Shook, and Schroeder (2013) toward the scores of reading and math test of the learners sitting in a Two-Way Immersion (TWI) Program exhibited the evidence that this program has yielded a positive impact in improving L1 and L2 reading skills as well as mathematics knowledge.

These prominent works we review above have essentially shed a light on a piece of evidence that L2 exposure in an immersion program does not threaten linguistic and cognitive development of bilingual children' L1. More importantly, L2 can somehow strengthen children mentality and thinking ability which in turn optimizes the L2 development itself.

This current study, again, is about to seek more empirical evidences of how such similar program is implemented in Indonesian context by looking at the 3rd graders' written production. Thus, the term *framework* we use here refers to specific pedagogical characteristics to which the program is carried out through the teaching and learning process. We value the framework to be a significant matter in enhancing English as the second language to the learners. In short, our study aims at (1) mapping the framework of the program where English partially immersed as the classroom instruction in English, Science, and Mathematics subjects, and (2) mapping the English proficiency of the 3rd graders of ICP learners in the three aforementioned subjects.

2. Method

The design of our study is descriptive qualitative as it is a picturesque of a reality. In other words, we work to present a true description of the situation where the 3rd graders' English proficiency was measured to explain the framework of Partial Immersion Program implemented in the school. In addition, the qualitative approach is appropriate as we also follow Fraenkell and Wallen (1993) in defining the term as that as long as the collected data are in the form of words, not numbers, those data are qualified through description resulting a descriptive finding. Even though some of the raw data of our study were in the form of scores (numbers), these numbers were still interpreted, described, and presented qualitatively.

Our participants were three teachers including English, Science, and Math teachers, and one program manager who supplied the documents and Standard Operating System (SOP) on how the program was regulated and implemented. It is in addition to the 25 learners of ICP Grade III to whom we distributed the English proficiency test.

In reference to the objectives of our study, the needed instruments were an interview guide and English proficiency tests. The interview guide was used to get a thorough description from the ICP teachers and program manager on how the program is framed, regulated, and implemented in the classroom. Furthermore, we developed the proficiency tests by elaborating two different curricula (National and International Curricula) utilized in ICP classes. The test structures were designed for learners to produce as much language as possible because through their production we mapped the stage of L2

acquisition. The proficiency tests were not only for English subject but also for Science and Mathematics subjects that it was done through: (1) the exploration on English, Science, and Math syllabus based on the synergy of national curriculum (2006) and international curriculum, (2) the mapping of competences and sub-competences of the three subjects, (3) the development of the frames of the 30 questions by combining objective format and essay format for each subject, (4) the try-out of the tests which have been validated by the teachers, and (5) the impelentation of the proficiency tests.

3. Findings and Discussion

Below is the description of the English Partial Immersion Program instigated in the ICP we were observing. Afterwards, the results and analysis of the proficiency test distributed to the 3rd graders is presented in such an explicit aim of describing the stage of L2 acquisition as well as the extent of program effectiveness in uplifting L2 proficiency in both English and non-English classes.

1. The Framework of English Partial Immersion Program

In reference to the teacher interview and document observation, our data analysis reveals some key frameworks of English Partial Immersion Program executed by the lab school of Universitas Negeri Malang Indonesia. There are essentially six frameworks namely the implementation of (1) bridging course, (2) blended curriculum, (3) English-immersion in English, Science, and Math classes, (4) restricted learning hours for English, Science, and Math subjects, (5) communicative teaching and learning, and (6) the involvement of certified teachers. We will discuss these frameworks more comprehensively in the followings.

The first framework of the ICP class that is observably different from bilingual class is that the learners are placed in a bridging course or a matriculation course before joining the program. It is primarily to anticipate heterogeneity of learners' L2 competence as each of them graduated from a different kindergarten. In other words, the first graders might start their first step of learning English with various proficiency levels because some kindergartens in Indonesian context may have introduced English more intensively than others. We assume that in the process of L2 learning, the risk-taker learners or those with low proficiency will potentially earn a promising language development especially in carrying out communication even with limited vocabulary and grammar as long as they have a positive attitude. Thus, we see that the need to conduct such a bridging course for ICP students is for teachers to put a positive attitude of learning English into a place so that students with a various level of proficiency can have a pretty much similar affective filter of learning. Regarding to this attitudinal issue, Brown (2015) puts forward the empirical evidence on how the subjects of his study sitting in English, Math, and Science class were confident enough to express their ideas orally and even write short essays with

some linguistic mistakes without bothering the organization of ideas. It supports the assumption that it is crucial to maintain the situation where children can develop their L2 naturally and enjoy every stages of their L2 acquisition. So what we found matters in our observation is not how much linguistic items learners have picked up, but how positive their attitude toward English language learning when entering Grade 1.

The second core framework is on the implementation of blended curriculum. The school has brought together national and international curriculum. The first refers to the curriculum regulated by Indonesian Ministry of Education, while the second is the one structured more universal and global by Cambridge, so that English, Science, and Mathematics in particular are characterized by their exclusive contents compared to the bilingual program's curriculum. This effort has considerably been put to reinforce the learning of English and more importantly to accelerate the students' English competence to enable them to communicate globally across disciplines. This elaboration and network has brought Cambridge Progression and Achievement Test into a part of the school regular agenda every semester. It has obviously been the reasons of making English as the classroom instruction. To such limited circumstances, we see that the immersion program implemented is primarily about to prepare students to join CIE (Cambridge International Examination) Progression and Achievement Test which is in the long run aimed at imposing them to be able to communicate globally. It works the same way in Science and Math class that the assessment is given in English in the aim of preparing students to get involved in an international-standardized test. A part from this practical reason, the act of using two curriculums is to assure the English language acquisition progresses more effectively as the obligation to implement more intensive use of English in the classes is one of the best ways to expose more inputs and to make it a part of students' linguistic repertoires.

Putting two curriculums into a place brings such pedagogical consequence of immersing English in non English classes. To enable learners in utilizing language more effectively in daily life, English is used as a medium of instruction in English, Science and Math, even though the term 'immersion' itself is sometimes interchangeable with the term 'content-based' learning. In our study, we do not worry too much about it, except the fact that in our context we highlight the use of English as an instructional language as a common ground of both terms. Thus, we take lessons from some experiments, such as conducted by Carrasquillo, Kucer, and Abrams (2004) who discover that content-based language learning may help learners optimize L2 learning because it raises their motivation along with having more exposures to Social Studies, Science and Math. In other words, integrating content and language affects the acquisition of a diverse cognitive, linguistic, and metacognitive process. Those who are immersed in such learning will acquire both content-based comprehension and language skills (listening, reading, speaking and writing) at once. Moreover, it has also been stated that the synergy of the context of school instruction, content-based learning and language skills can be considered as the indicator

of students' competence in comprehending and producing language. However, some experts still question the impact of content-based instruction on children's cognitive and linguistic development. Yet, Swain and Lapkin (1982) discover that transfering knowledge on any subject matters in second language will not harm the development of children' intellectuality and intelligence.

The execution of this program in school curriculum is the third core framework we want to discuss. By underlining some regulation we found from the school documents, we figure out that the immersion is carried out partially in the sense that the introduction of Science and Mathematics concepts in Grade 1 is given in Indonesian, but the lesson review and teachers' feedback is in English. As the learners get into the higher grades, specifically from 3rd to 6th grade, the use of English will fully be a part of class instruction. All aforementioned efforts have been utilized to maximize the acquisition process of English as this language functions as a foreign language in Indonesian context. Being placed as foreign language, the learning of English most possibly becomes more challenging, not only because students have to familiarize themselves into a different kind of language systems, but also because the language is not being spoken in public spheres.

Mill (1993a) has proposed a more constructive expectation in regards to the challenges in L2 acquisition by arguing that at the beginning stage of L2 learning a child may not show significant linguistic development, however subsconciously her/his receptive and productive skills gradually improve. It is indeed by the help of some other key factors including the quality of input and exposure, social environments, and child psychology. Elaborating the insight into our finding, we believe that the implementation of English Partial Immersion Program through gradable stages is a factual effort of valuing the socio-psychological development of young learners that at same time putting children holistically as a focus of attention.

As we aim to immerse English by making it as a classroom instruction, the learning hour of English, Science, and Math is also set up very specifically for the purpose of imposing more inputs. Our observation reveals that students regularly have three meetings for English and two meetings for each of Science and Math in a week with 70 minutes per meeting. The three meetings of English contain two different learning focuses. The first two are for regular curricular components including Listening, Reading, Writing, and Speaking, while the other one is for Reading. In the context of L2 learning, this learning hour is articulated as the length of exposure which in Mill's (1993) study means that language learning is not simply an active process working in some communicative exchanges but it requires massive language exposure among language users which can be achieved through the length and amount of input. This particular finding has proven the school's effort to put students in English speaking environment in both English and non English classes with a restricted learning hour to aim at creating such linguistic situation

where they can grab as much language input as possible.

The fifth framework matters a lot in pedagogical context. It is the teaching and learning strategy that implicitly brings the whole immersion program into learners' learning process. As a matter of fact, the lab school has made efforts to employ communicative and interactive learning so as to enhance L2 mastery. One of which is problem solving activity involving simple oral and written practices. We follow Mills (1993b) in exclaiming that communicative learning is proven effective to advance L2 output. More importantly, it is through communicative and interactive teaching and learning, the knowledge of Science and Math as well as the linguistic aspects of English is put into operation by designing classroom activities that all employ *LOTS (Low Order Thinking Skills)* and *HOTS (High Order Thinking Skills)* with various learning strategies and media. What is meant to be various in our finding mainly refers to the core idea of using language that is to build an environment where students can acquire English by using it interactively with teachers and classmates. To certain extent, it is to agree to Mills (1993) who postulates the idea that peer group support in which students are encouraged to study together with their peers resulting in social interaction with various adaptive learning patterns so that they have opportunities to discuss, argue, question, give and refuse opinions. By doing such activities, learners are engaged to real language use.

The last core framework of the program lies upon the critical function of teachers in second language classroom. Thus, the arrangement of the ICP teachers is that every class is organized by two teachers; classroom teacher (English teachers) and subject teacher. In other words, Science and Math teachers are accompanied by English teacher, so they can have collaborative work to monitor students' English development. More specifically, the ICP class teachers are internationally certified with some regular short courses and trainings. Our finding is in line to Lasagabaster's (2001) study on the Basque immersion program in the way that the most challenging feature of the program was to find qualified teachers who could speak Basque which made Basque language trainings become the first step taken by the Basque Government through the so-called IRALE program.

All in all, the English Partial Immersion Program at the Laboratory Primary School of Univeristas Negeri Malang Indonesia is framed under the abovementioned six attributes that for the most part is to assure students' L2 acquisition and development. In the followings, we are going to discuss the stage of L2 acquisition encapsulated from the English proficiency test we were experimenting in the 3rd graders of English, Science, and Math class. Portraying their proficiency, we mean to gather as much information as possible particularly on how the acquisition relates to how immersion program was implemented. In other words, we work to examine how the whole core frameworks of immersion have shaped the students' L2 proficiency.

2. English Language Proficiency Test Results

By virtue of the result analysis in English proficiency tests of English, Science, and Math subjects, we portray language acquisition in two aspects; language comprehension and language production which we discuss as follows.

1) The English Proficiency Test in English Class

The critical period hypothesis as also pursued further by Marinova-Todd, Marshall, and Snow (2000) to articulate a period before the onset of puberty when acquiring and/or learning a language is fairly effortless is the hypothesis we bring together in conducting this study. Taking 3rd graders of Primary School as the center of our attention has clearly been something to do with age factor when L2 learning started. Again, we consider age is crucial in determining proficiency in supplementary to the length and amount of L2 input exposed. Below we present our findings in regards to what aspects of English language that students of our investigation have already acquired. We attempt to articulate what aspects of L2 these students have acquired and what other aspects they have not arrived yet.

As abovementioned, we designed our instrument to be able to picture students' language comprehension and production. Language comprehension is observed from their capability to understand imperative sentences or instructions in every given questions of the test. These imperative sentences were constructed in different forms using various vocabularies so it was also to predict the learners' grammatical and lexical capability. On the other hand, we examine the proficiency level of production by arranging such questions leading to produce words, phrases, clauses/simple sentences in different sentence types including positive, negative, and interrogative.

The proficiency test concludes that the average capability to comprehend the explicit imperative sentences is 94 %, while the average capability to comprehend implicit imperative sentence is 77.5%. This result indicates that there are stages in acquiring L2 which makes explicit imperative sentences easier to comprehend so that these sentences are also easily responded by the children. However, we consider 77.5% as significant enough to map the level of L2 comprehension. This positive finding denotes that the teachers' effort to provide such communicative and interactive teaching and learning has most likely brought contextual learning where learners got involved in an authentic language use so that they were accustomed to such various linguistic forms and patterns.

In terms of language production, we find that students have moved beyond word level which means that they wrote English words accurately following the English spelling system even though their L1 (Indonesian) and L2 (English) exhibit somewhat huge

different spelling system. Again, it proves that one extra meeting for English reading sessions has given a great deal of positive influence toward the acquisition of L2 spelling system.

When we come to analyzing students' sentences, we encounter some more complex systems of language that is very significant during bilinguals' acquisition process. The complexity comes at the point where they have to adjust their L1 linguistic knowledge into the morpho-syntactic features of L2. It is essential to underline that students' L1 and L2 do not share much common features of morpho-syntax. Here we pay more attention to two morpho-syntactic features (number and tense features) and one syntactic feature of English (word/SVO order).

In regard to the production of number features, we come up with the finding that 11 out of 21 students were able to produce accurate singular-plural marker indicated by question (1), 7 were inaccurate, and 3 other did not answer the question.

(1) Change these sentences from singular to plural.

I have one pencil case.

Such inaccuracies of singular-plural markers are such as the followings.

(2) *I have two pencil **case.***

(3) *I have two **pencils** case.*

Students producing inaccurate answer (2) were not aware of the existence of bound morpheme [-s/-es] to mark plural in English because their L1 does not have such system, whereas students with answer (3) might presumably have started to acquire such number system but have not gone much in constructing English noun phrase so that they failed in attaching plural marker [-s] to the second noun as the head. We construct similar type of question as below that surprisingly shows different result.

(4) Change these sentences from singular to plural.

Inside the pencil case, there is one pocket."

We find 13 out of 21 students made a mistake when transforming singular into plural, five produced accurate plural sentences, and 3 did not answer the question in (4).

The inaccurate production appeared as follows.

(5) *there is many pockets*

(6) *there is one pockets*

(7) *there is many pocket*

(8) *there are many pocket.*

Examining the production of (5) – (8) we assume that in English morpho-syntactic system it is not only the attachment of bound morpheme [-s/-es] to the noun that matters, but also the regulation of verb agreement in a way that certain verb form is determined by the singularity and plurality of its noun. Both features do not exist in Indonesian that is somewhat challenging during bilingual L2 acquisition process. However, such findings may vary across languages. Aronin and Toubkin (2002) who conducted a study in multilingual settings of Israel investigating Russian (L1)-Hebrew (L2)-English (L3) trilinguals sitting in Hebrew (L2) immersion program found that students' Hebrew (L2) learning were not distracted or interfered by either Russian (L1) or English (L3), but it was surprisingly not the case for English (L3) learning because some students felt that Hebrew (L2) were interfering their English (L3) learning. By pointing out this issue, they were to argue that it is the previous language learning experience that was influencing, not which kind of language being learned (Ibid). In any ways, our study and Aronin and Toubkin's (2002) study are to support Paradis's (2010) hypothesis asserting that bilingual children get exposed to more variability of inputs compared to those of monolinguals and that the inputs may be unequal between two languages as well as very restricted to certain sociolinguistic circumstances, thus the product of acquisition may noticeably vary across cases.

The second feature we are observing is tense marker that we also included in the test items. In referring to this particular feature, we highlight the argumentation of Hirata-Edds (2011) stating that English past tense requires two levels of acquisition, from verbal words to the application of grammatical rule to new word forms. It is to mention that acquiring English past tense means that learners have to firstly identify English verbs and reformulate those verbs into their past forms by applying certain restricted rules including the attachment of bound morpheme and arranging verb agreements. Thus, introducing linguistic features or properties may be crucial especially for those acquiring two languages (Ibid). Paradis (2010, 656) stands on similar stance hypothesizing that "Because tense morphemes in English are late-acquired in monolinguals, it is logical to examine whether bilinguals would lag behind monolinguals in their acquisition". Thus, it is likely very essential to provide bilingual learners such an extensive and intensive exposure mainly on the scope of tense-marking morphemes compared to other morphological

properties (Paradis, 2010).

English tense marker is by itself complex, so that we notice some challenges our students had encountered in the proficiency test that asked them the question (9) below.

(9) Change this sentence from present to past tense.

*I **help** my mother preparing dinner **everyday.***

We find 3 out of 21 students with an accurate past-tense transformation, 13 produced inaccurate past marker, and 5 did not answer. The typical inaccuracies are below.

(10) *Yesterday **I buy** book*

(11) *Yesterday **I help** my mother preparing dinner everyday.*

(12) *Yesterday, **I helps** my mother preparing dinner.*

(13) *Yesterday **I helps** my mother preparing dinner everyday*

(14) ***I helping** my mother preparing dinner yesterday.*

(15) ***I helping** my mother preparing dinner every time.*

We assume to be true that the students of our examination have not arrived at the point of acquiring past-tense system completely because of the sophistication and multilevel patterns of word formation occurring in English past-tense even though the school curriculum has brought this grammatical pattern into a place. The other assumption is that there is no shared feature of past tense between L1 and L2 so that the pattern becomes very challenging. Again, a comprehensible and contextual input will influentially be helpful according to Marinova-Todd, Siegel and Mazabel (2013) by referring to their finding affirming that the morphological structure of L1 affects the morphological acquisition of L2. It is perhaps not only the linguistic similarities and differences lying inside the two languages alone, but also the complexity of grammatical structures (Paradis, 2010) that actually stimulate their awareness which at the same time either accelerate or slow down L2 learning process that it makes bilinguals different from their monolingual peers. An experimental study conducted by Dongbo (2016) to the 4rd and 6th graders of Singaporean Malay-English learners strengthens the claim of the importance of imposing a direct morphological instruction of the two languages to build their morphological awareness and enhance L1-L2 development.

The last feature we aim to examine is word (SVO) order. To measure the

acquisition stage of English SVO, we designed the test to confirm students' ability to construct sentences by themselves such as the following.

(16) Mention three activities that you usually do at home after school. Write them in complete sentences.

The result reveals that 11 out of 21 were able to produce complete sentences with a correct word order and grammatical markers, 6 were able to produce complete sentence with correct word order but inaccurate grammatical marker, 3 learners were only able to produce word/phrase, not a sentence, and 1 subject did not produced any sentences. There were 63 sentences in total that 28 of them were simple sentences with accurate SVO order and accurate grammatical marker, 13 others were simple sentences with a correct SVO order but inaccurate grammatical marker, the other 16 were not counted as sentence but rather words and phrases, and the last 6 sentences had no form. These overall sentence productions have lent us an assumption that the shared syntactic structure of L1 and L2 has indeed facilitated L2 learning. The strong positive influence of shared-SVO order of L1 and L2 can also be proven from the type of question asking our subjects to arrange jumbled words below.

(17) Arrange the words below into a good sentence

we–to – week – last – went – Yogyakarta

puts – juice– mangoes – Sue– her – two – fruit – in

Our finding suggests that all students were successful in arranging the first into a perfect word-order due to the similarity both languages have shared. However it does not work comparably with the second as there was only one student who could perfectly put the jumbled words into an accurate syntactical order of English. The argument we can build upon this difference is that the second group contain more nouns functioned as determiner that may confuse students as they have not acquired much about how to structure noun phrase in English. Again, the dissimilarity of noun phrase construction of Indonesian L1 and English L2 has obviously been a serious deal during L2 acquisition. In regards to our finding, Paradis (2010) discusses the significant role of exposure, language dominance, and grammatical complexity that become contributing factors of L2 acquisition. It is to put an argument forward that the complexities of English noun-phrase construction along with its bound grammatical markers are those the bilingual learners of our study have to work with, in addition to their Indonesian L1 dominance.

2) The English Proficiency Test in Science Class

The findings which explain the students' language acquisition based on their Science proficiency test were taken from a real study. The 21 participants whose score ranged from 95 to 50 were then classified into 3 (three) groups: the upper group (95 to 81), the middle group (80 to 66), and the lower group (65 to 50). Their language comprehension and language production are presented in the following.

From the language comprehension point of view, it reveals that a) the upper group (11/52% of the students) comprehended the meaning of specific words and phrases related to Science, in addition to their ability to recognize several sentence types, such as declarative, imperative, and interrogative sentences, b) the middle one (7/33% of the students) comprehended the meaning of some specific words and phrases related to Science and could understand several sentence types, such as declarative, imperative, and interrogative sentences, and c) the lower one (3/14% of the students) digested the meaning of some specific words and phrases related to Science but they could recognize several sentence types, such as declarative, imperative, and interrogative.

On the other hand, viewed from the language production, a) the upper group was defined to be able to write several words such as *root, stem, James, leaves, jump, hand, eat, float, carbohydrate, strecthy, shiny, jogging, food, fertilizer, chocolate, rough;* phrases like *fatty foods; clauses like ... because the plant gave water;* and complete simple sentence like *it will go up again, the ping pong ball will float all correctly,* b) the middle one was defined to be able to write *root* or *steam* to label specific part of a tree, *strecthy, shiny, chocolate;* some expressions such as *swimming and running*; clauses *like for our healthy (health);* and complete simple sentence as in *No, it can't, Yes, it can, He give water every day, He give water every day,* and c) the lower one was defined to be able to write several words such as *root, water, yes, no, writing, eat, walking, eraser, walk and run;* clauses like ... *because he <u>water</u> every day;* and a complete simple sentence as in *the ball will go under the water and go up again.*

Hence, for the achievers in the English-based Science instruction, we claim that in general the students with different levels of proficiency (low, mid and high) were competent enough in understanding words, phrases, instructions, declarative statements, and questions as reflected in their responses. In whatever way, compared to the high achievers, the low and mid had more problems in grasping the content since their linguistic competence was limited. Question (18) below illustrates the problem.

(18) *Why is it important to have various food?*

They tended to answer "*fish and cheese*" (The right answer is "*to take care of good*

health"). Hence, it can be inferred then that the high achievers are more competent in internalizing linguistic items than those of the low and mid. This evidence is reinforced by a study by Wagner-Gough and Hatch (1975) stipulating that the L2 acquisition is influenced by several factors including the maximum amount exposure or input. Children, according to them, are inclined to repeat, speak, write, linguistic input they are learning whenever they face difficuties in digesting content.

In the course of learning content through English, particularly in the level of production, the students with different levels of intelligence may experience what is commonly called "interlanguage" (Krashen, 1981) in which language learners have their own lingustic patterns to express ideas, not following the required system. As an example, instead of expressing " ... *because James waters the plant every day,"* they wrote down "... *because James water the plant every day*." (The third person singular marker -s in the verb water is missing). Furthermore, students learned English via content which is according to Dale and Tanner (2012) such learning is congruent with CLIL approach. Thus, prior to their language production, students should obtain much input which is in line with a basic underlying principle of L2 acquisition proposed by Krashen (1981).

Further, Carrasquillo et.al (2004) clarify that in order to support the success of sinergizing the mastery of content and language competence in instruction, a teacher is demanded to introduce various topics through diverse strategies like demonstration, doing experiments, conducting presentions etc. and the employment of instructional media (real objects, pictures, film, etc.). As an example, a teacher can make use of a thermometer, telescope, computer, and scale in a Science class. Thus, in integrating content and language, there are at least 4 (four) strategies to be put in practice; (1) scaffolding instruction through appropriate comprehension monitoring, self-questioning, and small-group discussion strategies, (2) direct instruction, especially for vocabulary development and for information processing strategies, (3) frequent use of thematic units, and (4) frequent use of different types of questioning strategies to guide students to search for information" (Ibid).

This stage of acquisition is further supported by our interview to the teachers that brings more evidences that they have already applied communicative strategies, the high frequency vocabulary and other technical terms were always pretaught in relation to theme-based topics being discussed, and stimulating questions covering both LOTS (lower order thinking skills) and HOTS (higher order thinking skills) were put into practice. In one hand, such instructional process is indeed considered sufficiently good for beginners in terms of the mastery of various diction, simple sentence patterns, and the accuracy of syntactic features. On the other hand, there still appear some troublesome points like the misuse of tense markers (to be specific, the past marker), the concepts of singular and plural forms, the use of subject-specific vocabulary, and some conceptual ideas on Science.

These ICP teachers were of the opinion that the use of English as classroom instruction in Science subject was really a challenge for them because their mastery of English is the primary prequisite in the process of teaching Science. Basic Science deals with 'Earth Science, Life Science, Physical Science, Natural Science, Chemistry, and Physics. This lesson is commonly taught through observations and simple experiments. Therefore, they are challenged to simplify the language for instructional materials on Science so as to assist the students at learning as postulated by Carrasquillo et al. (2004). Simplifying the language will make materials on Science more meaningful so as to help the students achieve both content and language proficiency. Also, as the students were trained to think critically and scientifically through the process of observing, inferring, predicting, hypothesizing, experimenting, and discovering something, the subject specific vocabularies are essential to be imposed prior to learning Science. These vocabularies equipped students in interacting and communicating with peers during the process of Science learning. Furthermore, in order to reinforce high order thinking skills, the teachers provide them with problem solving activities to confirm scientific insights as well as improve language proficiency.

3) The English Proficiency Test in Mathematics Class

The scores of Mathematics test done by the students range from 16,5 to 75,77. Similar to the Science class, the students were also classified into 3 (three) groups based on the result of the test to include the upper group or the high achiever (from 60.38 to 75.77), the middle group or the middle achiever (from 51.73 to 58.08), and the lower group or the low achiever (from 16.35 to 46.54).

In terms of language acquisition, it can be seen that (1) the upper group or the high achiever is able to understand the meaning of many words and phrases relevant to mathematics, as well as some interrogative and imperative sentences, (2)) the middle group or the middle achiever is able to understand the meaning of half of the given words and phrases related to Mathematics, as well as some interrogative and imperative sentences, (3) the lower group or the low achiever is able to understand the meaning of a few of words and phrases relevant to mathematics, as well as some interrogative and imperative sentences.

Based on the analysis of these test scores, it can be concluded that the students belong to the upper group or the high achiever is able to give correct answer since they can understand the instruction given in English. Therefore, it can empirically be revealed that firstly, the middle and low achievers still found difficulties in solving mathematical problems, yet they were able to comprehend instrcutions using high frequency words and phrases. Whenever they came across instructions with low frequeny words or phrases, they had problems in understanding the meaning of instructions resulting in being unable to

provide correct answers. This evidence is supported by a study by Marsh, Hau, and Kong (2000) verifying that in Hong Kong there was a tendency that the use of English as the medium of instruction in teaching Math did not provide a positive impact on the students' mastery of Mathematical materials as non language subject matters. In other words, for the low and middle achievers with insufficient English proficiency, the teaching of Math through English as a means of instruction (content-based instruction) did not make the learners be more competent in comprehending the mathematical concepts to solve problems.

Furthermore, in terms of language production, the high and mid achievers are able to write phrases such the followings:

(19) *one hundred and fourteen*

(20) *five hundred and fifty three*

(21) *seven hundred and seventy two*

(22) *twenty thousand rupiahs*

(23) *one hundred eighty six thousand rupiah*

This result illustrates the students' stage of acquiring L2 spellings system as well as their consistency in spelling the numbers. Meanwhile, the low achievers were just able to write phrases as the following with some minor spelling mistakes:

(24) *five hundreds and fifty three*

(25) *three hundreds and forty four*

(26) *seven hundreds and seventy two*

(27) *one hundrade and fourteen*

(28) *fivety six*

(29) *four hundrate*

The above data explain the difference L2 competence among the three groups of achievers, where the high and mid achievers can considerably be consistent in spelling the numbers, while the low achievers make more mistakes than the middle achievers. According to the teachers we were interviewing, the use of English as classroom instruction for Math is a thought provoking. The basic materials for Math including measurement, currency, shapes, addition, substration and others are considered meaningful in students' future life. Yet, there is also a challenge for the Math teachers. As it applies to

Science, teachers should also introduce some Math specific vocabulary for the operation of particular contexts prior to comprehending mathematical concepts. In addition, we follow Carrasquillo et al. (2004) in arguing that Math is not simply about building students' skills of counting but more significantly the critical thinking ability in solving problems.

4. Conclusions

After reviewing the school documents and interviewing class teachers, we conclude that the English Partial Immersion Program in the Laboratory Primary School of Universitas Negeri Malang Indonesia is implemented under seven frameworks, namely the implementation of (1) bridging course, (2) blended curriculum, (3) English-immersion in English, Science, and Math classes, (4) restricted learning hours for English, Science, and Math subjects, (5) communicative teaching and learning, and (6) the involvement of certified teachers. We argue that the implementation of such frameworks has uplifted the students' English proficiency as proven by the result of English proficiency test that we distributed to the third graders of ICP classes in English, Science, and Mathematics class.

The results of English proficiency test in English class demonstrate the satisfying level of language comprehension as proven that 94% of the third graders comprehended the explicit imperative sentences and 77.5% of them comprehended the implicit imperative sentence. On the language production level, most of the observed learners could produce words and phrases with an accurate English spelling system. More importantly, they have arrived at sentence production level with an accurate word order, but with some morpho-syntactic inaccuracies, such as number, person, and tense feature failure.

The results of English proficiency test in Science and Mathematics class prove that these students were able to comprehend written instructions satisfyingly which enabled them to perform the required tasks correctly. However since Science and Mathematics concept is by itself challenging, the students sometimes made mistakes in answering a scientific problem and calculating the numbers in English.

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